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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/528,402

04/06/2005

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042933/373916

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7590

12/07/2009

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EXAMINER

CEHIC, KENAN

ART UNIT

PAPER NUMBER

2473

MAIL DATE

DELIVERY MODE

12/07/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/528,402	Applicant(s) LIALIAMOU ET AL.	
	Examiner KENAN CEHIC	Art Unit 2473	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 and 25-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21, 25-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 1-21, 25-27 objected to because of the following informalities:

For claim 1, line 10, change “the flow” to –a flow—since it is the first instance. The same problem exist for claim 11 line 11 and claim 21 line 10

For claim 1, line 14 it is suggested to change “the respective data packet” to – a respective data packet—since it is the first occurrence. The same problem exist in claim 11 line 14 and claim 21 line 14

For claim 1, in line 15 "said detected data flows" needs to be changed to --the detected data flows--, since there was no instance of "detected data flows". The same applies to claim 11 line 15 .

For claim 2, in line 2 "said generated charging information" needs to be changed to --the generated charging information --, since there was no instance of " generated charging information". The same problem exist in claim 12 line 3.

For claim 9, line 3 change “at least one flow parameter” to – the least one flow parameter—if the applicant refers to the same limitations as recited in claim 1 line 8.

For claim 9, line 8 change “a packet data protocol context” to – the packet data protocol context —if the applicant refers to the same limitations as recited in claim 1.

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For claim 9, line 6 change “said selected charging policy” to –the selected charging policy--. The same problem exist in claim 19 line 8.

For claim 11, line 7 “the plurality of flows” needs to be change to --the plurality of data flows" to match the previous language in the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-21, 25-27 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For claim 1 line 13 “the data packets” lacks antecedent basis. It is not clear if the applicant is referring to data packets reaching the network element or the observed packets.

For claim 2, line 3 there is not antecedent basis for “the communication network”. The same problems exist in claim 12 line 4.

For claim 10 line 2, "said network element" lacks antecedent basis. It appears that the applicant is trying to refer to "at least one network element" in claim 9, however in claim 1 there is another instance of “network element”. Therefore it is not clear to which

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network element "said network element" is referring to. The same problem exist in claim 20 line 2.

For claim 11, line 17 there is a lack of antecedent basis for "said data flows", since there is multiple instances of data flows such as in line 7, line 12, line 15. It is not clear to which data flows the applicant is referring to.

For claim 13, line 2 "the charging policy" lacks antecedent basis. There are multiple instances of charging policy in claim 11 such as line 3, line 11, line 15-16. The same problem exist in claim 14 line 2, claim 15 line 2.

For claim 17, there is a lack of antecedent basis for "said data flows", since there is multiple instances of data flows such as in line 7, line 12, line 15. It is not clear to which data flows the applicant is referring to. Similar problems exist in claim 7 line 1.

For claim 21, there is a lack of antecedent basis for "said data flows" in line 17. There are multiple instances of data flows such as in line 4, line 11, line 13

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by

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another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claim 1, 11, 21, 23, 25-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Roberts (US 2003/0152039).

For claim 1 and similarly claim 23, Roberts discloses A method, comprising: enforcing a charging policy (see section 0012-14 "determining said rules and each packet address, a respective billing tariff and account for that packet" and section 0020-0021) at a network element (see section 0020-21 "charging information is achieved via the analysis of packets, preferably at the GGSN" and section 0028, 0058 "charging is related to content or application, rules within the GGSN will be triggered...charging rates being applied.." and section 0062-68 "GGSN filter...and is at a MusicSite rate" and section 0095, section 0101 "GGSN matches site IP address/URL etc and places costs in the relevant traffic CDS"; section 0104) to be applied to reaching the network element (see section 014 "packet analyzer for determining from said rules and each packet address, a respective billing tariff" and section 0021 "analysis of packet, preferably at the GGSN" and section 0028, section 0036) during a packet data protocol context

(see section 0004 “billing system to differentiate between different services on the same PDP context”; sections 0062-79 “PDP context”; section 0087 “context is set-up”), the packet data protocol context (see section 0004 “billing system to differentiate between different services on the same PDP context”; sections 0062-79 “PDP context”; section 0087 “context is set-up”) comprising a plurality of data flows (see section 0004 “billing system to differentiate between different services on the same PDP context”; sections 0062-79 “PDP context”), with each data flow being distinguishable by a set of flow parameters (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0021 “analysis of packets, preferably at the GGSN” and section 0027-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; sections 0062-0079 “URL...PDP context...IP address...charging ID...”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced reate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...”; section 0114 “VoIP/Video Streaming...”), wherein said charging policy defines charging rules per flow of the plurality of flows_(see

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section 0012-14 "determining said rules and each packet address, a respective billing tariff and account for that packet" section 0020-21 "charging information is achieved via the analysis of packets, preferably at the GGSN" and section 0028, 0058 "charging is related to content or application, rules within the GGSN will be triggered...charging rates being applied.." and section 0062-68 "GGSN filter...and is at a MusicSite rate" and section 0095, section 0101 "GGSN matches site IP address/URL etc and places costs in the relevant traffic CDS"; section 0104);

observing the data packets reaching said network element (see section 0012-014 "each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff" and section 0021 "analysis of packets, preferably at the GGSN" and section 0027-28, section 0036 "IP address or URL...provisioning the relevant URLs as required..."; sections 0062-0079 "URL...PDP context...IP address...charging ID..."; section 0093-96 "initiates the FTP...free access URL...track is downloaded...reduced reate...IP multiplexes...chargeable packets"; section 0099-101 "IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges..."; section 0104-109 "packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...; section 0114 "VoIP/Video Streaming..."), the data

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packets including at least one flow parameter (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0021 “analysis of packets, preferably at the GGSN” and section 0027-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; sections 0062-0079 “URL...PDP context...IP address...charging ID...”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced reate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR...real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...”; section 0114 “VoIP/Video Streaming...”),

wherein the at least one flow parameter includes a flow identifier (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0021 “analysis of packets, preferably at the GGSN” and section 0027-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; sections 0062-0079 “URL...PDP context...IP address...charging ID...”; section 0093-96 “initiates the

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FTP...free access URL...track is downloaded...reduced reate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...; section 0114 “VoIP/Video Streaming...”), and wherein the at least one flow parameter indicates an associated flow charging policy for the flow (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0021 “analysis of packets, preferably at the GGSN” and section 0027-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; sections 0062-0079 “URL...PDP context...IP address...charging ID...”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced reate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...; section 0114 “VoIP/Video Streaming...”)

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and detecting at least one data flow from flow parameters included in the observed data packets (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0021 “analysis of packets, preferably at the GGSN” and section 0027-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; sections 0062-0079 “URL...PDP context...IP address...charging ID...”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced reate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...”; section 0114 “VoIP/Video Streaming...”);

mapping the data packets to detected data flows in accordance with the at least one flow parameter included in the respective data packet (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0021 “analysis of packets, preferably at the GGSN” and section 0027-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; sections 0062-0079

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“URL...PDP context...IP address...charging ID...”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced reate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...”; section 0114 “VoIP/Video Streaming...”); matching said detected data flows to an enforced charging policy (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0020-21 “charging information is achieved via the analysis of packets, preferably at the GGSN” and sections 0026-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; 0058 “charging is related to content or application, rules within the GGSN will be triggered...charging rates being applied..”; sections 0062-0079 “URL...PDP context...IP address...charging ID... GGSN filter...and is at a MusicSite rate”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced rate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server

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virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...; section 0114 "VoIP/Video Streaming..."); and

applying said enforced charging policy to said data flows to generate charging information (see section 0012-014 "each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff" and section 0020-21 "charging information is achieved via the analysis of packets, preferably at the GGSN" and sections 0026-28, section 0036 "IP address or URL...provisioning the relevant URLs as required..."; 0058 "charging is related to content or application, rules within the GGSN will be triggered...charging rates being applied.."; sections 0062-0079 "URL...PDP context...IP address...charging ID... GGSN filter...and is at a MusicSite rate"; section 0093-96 "initiates the FTP...free access URL...track is downloaded...reduced rate...IP multiplexes...chargeable packets"; section 0099-101 "IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges..."; section 0104-109 "packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...; section 0114 "VoIP/Video Streaming..."; section 0015" purchased goods or services are debited to a customer pre-paid or postpaid account....credit applied to an account held by the provider of those goods or services", section 0017 "credit

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transfer”, section 0021, 0024, 0026 “account..accounting system”, section 0030, 0060 “transaction...account..bill...accounting....records..”).

For claim 23, Roberts discloses a computer program embodied on a computer-readable medium, the computer program (see section 0019 “methos may be performed...control of software in machine readable form on a storage medium”) configured to control a processor (see figure) to perform operations (see section 0019 “methos may be performed...control of software in machine readable form on a storage medium”)

For claim 11, enforce a charging policy at a network element to be applied to data packets reaching the network element (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0020-21 “charging information is achieved via the analysis of packets, preferably at the GGSN” and sections 0026-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; 0058 “charging is related to content or application, rules within the GGSN will be triggered...charging rates being applied..”; sections 0062-0079 “URL...PDP context...IP address...charging ID... GGSN filter...and is at a MusicSite rate”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced rate...IP multiplexes...chargeable packets”; section 0099-

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101 "IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges..."; section 0104-109 "packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...; section 0114 "VoIP/Video Streaming..."; section 0015" purchased goods or services are debited to a customer pre-paid or postpaid account....credit applied to an account held by the provider of those goods or services", section 0017 "credit transfer", section 0021, 0024, 0026 "account..accounting system", section 0030, 0060 "transaction...account..bill...accounting....records..") during a packet data protocol context (see section 0004 "billing system to differentiate between different services on the same PDP context"; sections 0062-79 "PDP context"; section 0087 "context is set-up"), the packet data protocol context comprising a plurality of data flows (see section 0004 "billing system to differentiate between different services on the same PDP context"; sections 0062-79 "PDP context"), data flows of the plurality of data flows being distinguishable by a set of flow parameters (see section 0012-014 "each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff" and section 0021 "analysis of packets, preferably at the GGSN" and section 0027-28, section 0036 "IP address or URL...provisioning the relevant URLs as required..."; sections 0062-0079 "URL...PDP context...IP address...charging ID..."; section 0093-96 "initiates the

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FTP...free access URL...track is downloaded...reduced reate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...”; section 0114 “VoIP/Video Streaming...”), wherein said charging policy defines charging rules per data flow of the plurality of flows (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0020-21 “charging information is achieved via the analysis of packets, preferably at the GGSN” and sections 0026-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; 0058 “charging is related to content or application, rules within the GGSN will be triggered...charging rates being applied..”; sections 0062-0079 “URL...PDP context...IP address...charging ID... GGSN filter...and is at a MusicSite rate”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced rate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded

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packets...after one-time URL allocated...charging...; section 0114 “VoIP/Video Streaming...”);

observe said data packets reaching said network element (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0021 “analysis of packets, preferably at the GGSN” and section 0027-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; sections 0062-0079 “URL...PDP context...IP address...charging ID...”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced reate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...; section 0114 “VoIP/Video Streaming...”), the data packets including at least one flow parameter (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0021 “analysis of packets, preferably at the GGSN” and section 0027-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; sections 0062-0079 “URL...PDP context...IP

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address...charging ID...”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced reate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...; section 0114 “VoIP/Video Streaming...”),

wherein the at least one flow parameter includes a flow identifier (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0021 “analysis of packets, preferably at the GGSN” and section 0027-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; sections 0062-0079 “URL...PDP context...IP address...charging ID...”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced reate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL

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allocated...charging...; section 0114 "VoIP/Video Streaming..."), and wherein the at least one flow parameter indicates an associated flow charging policy for the flow (see section 0012-014 "each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff" and section 0021 "analysis of packets, preferably at the GGSN" and section 0027-28, section 0036 "IP address or URL...provisioning the relevant URLs as required..."; sections 0062-0079 "URL...PDP context...IP address...charging ID..."; section 0093-96 "initiates the FTP...free access URL...track is downloaded...reduced reate...IP multiplexes...chargeable packets"; section 0099-101 "IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges..."; section 0104-109 "packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...; section 0114 "VoIP/Video Streaming..."),

detect at least one data flow from flow parameters included in the observed data packets (see section 0012-014 "each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff" and section 0021 "analysis of packets, preferably at the GGSN" and section 0027-28, section 0036 "IP address or URL...provisioning the relevant URLs as required..."; sections 0062-0079

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“URL...PDP context...IP address...charging ID...”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced rate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...”; section 0114 “VoIP/Video Streaming...”);

map the data packets to detected data flows in accordance with the at least one flow parameter included in the respective data packet (see section 0012-014

“each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0021 “analysis of packets, preferably at the GGSN” and section 0027-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; sections 0062-0079

“URL...PDP context...IP address...charging ID...”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced rate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is

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part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...; section 0114 "VoIP/Video Streaming..."); a matching unit (see figure; reference char 1-5,10, 13)configured to match said detected data flows to an enforced charging policy (see section 0012-014 "each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff" and section 0020-21 "charging information is achieved via the analysis of packets, preferably at the GGSN" and sections 0026-28, section 0036 "IP address or URL...provisioning the relevant URLs as required..."; 0058 "charging is related to content or application, rules within the GGSN will be triggered...charging rates being applied.."; sections 0062-0079 "URL...PDP context...IP address...charging ID... GGSN filter...and is at a MusicSite rate"; section 0093-96 "initiates the FTP...free access URL...track is downloaded...reduced rate...IP multiplexes...chargeable packets"; section 0099-101 "IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges..."; section 0104-109 "packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...; section 0114 "VoIP/Video Streaming...");

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apply said enforced charging policy to said data flows (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0020-21 “charging information is achieved via the analysis of packets, preferably at the GGSN” and sections 0026-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; 0058 “charging is related to content or application, rules within the GGSN will be triggered...charging rates being applied..”; sections 0062-0079 “URL...PDP context...IP address...charging ID... GGSN filter...and is at a MusicSite rate”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced rate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...; section 0114 “VoIP/Video Streaming...”; section 0015” purchased goods or services are debited to a customer pre-paid or postpaid account....credit applied to an account held by the provider of those goods or services”, section 0017 “credit transfer”, section 0021, 0024, 0026 “account..accounting system”, section 0030, 0060 “transaction...account..bill...accounting....records..”);

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generate charging information (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0020-21 “charging information is achieved via the analysis of packets, preferably at the GGSN” and sections 0026-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; 0058 “charging is related to content or application, rules within the GGSN will be triggered...charging rates being applied..”; sections 0062-0079 “URL...PDP context...IP address...charging ID... GGSN filter...and is at a MusicSite rate”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced rate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...; section 0114 “VoIP/Video Streaming...”; section 0015” purchased goods or services are debited to a customer pre-paid or postpaid account....credit applied to an account held by the provider of those goods or services”, section 0017 “credit transfer”, section 0021, 0024, 0026 “account..accounting system”, section 0030, 0060 “transaction...account..bill...accounting....records..”), in response to applying said enforced charging policy (see section 0012-014 “each packet having an

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address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0020-21 “charging information is achieved via the analysis of packets, preferably at the GGSN” and sections 0026-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; 0058 “charging is related to content or application, rules within the GGSN will be triggered...charging rates being applied..”; sections 0062-0079 “URL...PDP context...IP address...charging ID... GGSN filter...and is at a MusicSite rate”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced rate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...”; section 0114 “VoIP/Video Streaming...”; section 0015” purchased goods or services are debited to a customer pre-paid or postpaid account....credit applied to an account held by the provider of those goods or services”, section 0017 “credit transfer”, section 0021, 0024, 0026 “account..accounting system”, section 0030, 0060 “transaction...account..bill...accounting....records..”).

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For claim 21, Roberts discloses enforcing means (see figure; reference char 1-5,10, 13) configured to enforce a charging policy at a network element to be applied to data packets reaching the network element (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0020-21 “charging information is achieved via the analysis of packets, preferably at the GGSN” and sections 0026-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; 0058 “charging is related to content or application, rules within the GGSN will be triggered...charging rates being applied..”; sections 0062-0079 “URL...PDP context...IP address...charging ID... GGSN filter...and is at a MusicSite rate”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced rate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...”; section 0114 “VoIP/Video Streaming...”; section 0015” purchased goods or services are debited to a customer pre-paid or postpaid account....credit applied to an account held by the provider of those goods or services”, section 0017 “credit transfer”, section 0021, 0024, 0026 “account..accounting system”, section 0030, 0060

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“transaction...account...bill...accounting....records..”) during a packet data protocol context (see section 0004 “billing system to differentiate between different services on the same PDP context”; sections 0062-79 “PDP context”; section 0087 “context is set-up”), the packet data protocol context comprising a plurality of data flows (see section 0004 “billing system to differentiate between different services on the same PDP context”; sections 0062-79 “PDP context”; section 0087 “context is set-up”), with each data flow of the plurality of data flows being distinguishable by a set of flow parameters (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0021 “analysis of packets, preferably at the GGSN” and section 0027-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; sections 0062-0079 “URL...PDP context...IP address...charging ID...”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced reate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...”; section 0114 “VoIP/Video Streaming...”), wherein said charging policy defines charging rules per data flow of the plurality of flows (see section 0012-014 “each packet

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having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0020-21 “charging information is achieved via the analysis of packets, preferably at the GGSN” and sections 0026-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; 0058 “charging is related to content or application, rules within the GGSN will be triggered...charging rates being applied..”; sections 0062-0079 “URL...PDP context...IP address...charging ID... GGSN filter...and is at a MusicSite rate”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced rate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...”; section 0114 “VoIP/Video Streaming...”;);observation means (see figure; reference char 1-5,10, 13) configured to observe said data packets reaching said network element (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0021 “analysis of packets, preferably at the GGSN” and section 0027-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; sections 0062-0079

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“URL...PDP context...IP address...charging ID...”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced reate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...”; section 0114 “VoIP/Video Streaming...”), the data packets each including at least one flow parameter (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0021 “analysis of packets, preferably at the GGSN” and section 0027-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; sections 0062-0079 “URL...PDP context...IP address...charging ID...”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced reate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...”; section 0114 “VoIP/Video Streaming...”),

wherein the at least one flow parameter includes a flow identifier (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0021 “analysis of packets, preferably at the GGSN” and section 0027-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; sections 0062-0079 “URL...PDP context...IP address...charging ID...”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced reate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...”; section 0114 “VoIP/Video Streaming...”), and wherein the at least one flow parameter indicates an associated flow charging policy for the flow (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0021 “analysis of packets, preferably at the GGSN” and section 0027-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; sections 0062-0079 “URL...PDP context...IP address...charging ID...”; section 0093-96 “initiates the

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FTP...free access URL...track is downloaded...reduced reate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...”; section 0114 “VoIP/Video Streaming...”),

the observation means (see figure; reference char 1-5,10, 13) being further configured to detect at least one data flow from flow parameters included in the observed data packets (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0021 “analysis of packets, preferably at the GGSN” and section 0027-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; sections 0062-0079 “URL...PDP context...IP address...charging ID...”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced reate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded

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packets...after one-time URL allocated...charging...; section 0114 "VoIP/Video Streaming...");mapping means (see figure; reference char 1-5,10, 13) configured to map each of the data packets to detected data flows in accordance with the at least one flow parameter included in the respective data packet (see section 0012-014 "each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff" and section 0021 "analysis of packets, preferably at the GGSN" and section 0027-28, section 0036 "IP address or URL...provisioning the relevant URLs as required..."; sections 0062-0079 "URL...PDP context...IP address...charging ID..."; section 0093-96 "initiates the FTP...free access URL...track is downloaded...reduced rate...IP multiplexes...chargeable packets"; section 0099-101 "IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges..."; section 0104-109 "packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...; section 0114 "VoIP/Video Streaming...");matching means (see figure; reference char 1-5,10, 13) configured to match said detected data flows of data to an enforced charging policy (see section 0012-014 "each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff" and section 0020-21 "charging information is achieved via the analysis of

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packets, preferably at the GGSN” and sections 0026-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; 0058 “charging is related to content or application, rules within the GGSN will be triggered...charging rates being applied..”; sections 0062-0079 “URL...PDP context...IP address...charging ID... GGSN filter...and is at a MusicSite rate”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced rate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...”; section 0114 “VoIP/Video Streaming...”) ; application means (see figure; reference char 1-5,10, 13) configured to apply said enforced charging policy to said data flows (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0020-21 “charging information is achieved via the analysis of packets, preferably at the GGSN” and sections 0026-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; 0058 “charging is related to content or application, rules within the GGSN will be triggered...charging rates being applied..”; sections 0062-0079 “URL...PDP context...IP address...charging ID... GGSN filter...and is at a

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MusicSite rate”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced rate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...”; section 0114 “VoIP/Video Streaming...”; section 0015” purchased goods or services are debited to a customer pre-paid or postpaid account....credit applied to an account held by the provider of those goods or services”, section 0017 “credit transfer”, section 0021, 0024, 0026 “account..accounting system”, section 0030, 0060 “transaction...account..bill...accounting....records..”); and generation means (see figure; reference char 1-5,10, 13), responsive to said application means (see figure; reference char 1-5,10, 13), configured to generate charging information (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0020-21 “charging information is achieved via the analysis of packets, preferably at the GGSN” and sections 0026-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; 0058 “charging is related to content or application, rules within the GGSN will be triggered...charging rates being applied..”; sections 0062-0079 “URL...PDP context...IP address...charging ID...

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GGSN filter...and is at a MusicSite rate”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced rate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...; section 0114 “VoIP/Video Streaming...”; section 0015” purchased goods or services are debited to a customer pre-paid or postpaid account....credit applied to an account held by the provider of those goods or services”, section 0017 “credit transfer”, section 0021, 0024, 0026 “account..accounting system”, section 0030, 0060 “transaction...account..bill...accounting....records..”).

For claim 25 and similarly 26-27, Roberts discloses herein observing the data packets includes observing the data packets reaching said network element (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0021 “analysis of packets, preferably at the GGSN” and section 0027-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; sections 0062-0079 “URL...PDP context...IP address...charging ID...”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced reate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP

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session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...; section 0114 “VoIP/Video Streaming...”), the data packets including the at least one flow parameter, the at least one flow parameter including a flow identifier and a destination address (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0021 “analysis of packets, preferably at the GGSN” and section 0027-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; sections 0062-0079 “URL...PDP context...IP address...charging ID...”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced reate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...; section 0114 “VoIP/Video Streaming...”; parameters such as IP addresses, URL are present and can be used when enforcing charging), wherein the flow identifier does not include the destination address (see section 0012-014 “each packet having an address...determining from....each packet address...packet analyzer for determining from said rules and each packet address, a respective billing tariff” and

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section 0021 “analysis of packets, preferably at the GGSN” and section 0027-28, section 0036 “IP address or URL...provisioning the relevant URLs as required...”; sections 0062-0079 “URL...PDP context...IP address...charging ID...”; section 0093-96 “initiates the FTP...free access URL...track is downloaded...reduced reate...IP multiplexes...chargeable packets”; section 0099-101 “IP sniffing...HTTP session...the GGSN matches site IP address/ URL etc and places cost in the relevant tariff CDR..real-time usage based charges...”; section 0104-109 “packets being charge based on storefront...URL...server virtual domain/ IP address is part of GGSN zero-rate filter...downloaded packets...after one-time URL allocated...charging...”; section 0114 “VoIP/Video Streaming...”; parameters such as IP addresses, URL are present and can be used when enforcing charging).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

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Patentability shall not be negated by the manner in which the invention was made.

2. Claim 2, 6, 12, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts (US 2003/0152039) in view of Jogalekar (US 7,002,977)

For claim 2, 6, 12, 16, Roberts discloses all the claimed invention as described above.

Roberts is silent about:

For claim 2 and similarly for claim 12, causing said generated charging information to be forwarded to a charging system of the communication network.

For claim 6, upon enforcing said charging policy, data volume counters are initialized.

For claim 12, the forwarding unit.

For claim 16, an initialization unit configured to initialize data volume counters and/or time counters responsive to enforcing said charging policy.

Jogalekar teaches a network element with the following features:

As regarding claim 2 and 12, Jogalekar discloses causing (see column 8 lines 38-48 "billing engine..transmit...to the network manager") said generated charging information to be forwarded (see column 8 lines 18-25 "billing engine may compile ...billing and accounting information") to a charging system (see column 8 lines 38-48 "network manager" and column 4 lines 47-49 "network

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manager...receives...information...for accounting and billing purposes”)of the communication network (see column 4 lines 1-7 “network”)

As regarding claim 6, Jogalekar discloses initializing (see column 12 lines 61-61 “creates service-specific counters such as either incrementing...or decrementing...”) data volume counters (see column 11 lines 41-50 “service-specific counters...counters...counts the packets”) upon enforcing said charging policy (see column 1 lines 61-67 “charging a premium rate” and column 11 lines 11-13 “policy engine...checks...policy table” and Figure 6 608,614, 616).

For claim 12, Jogalekar discloses the forwarding unit (see column 8 lines 38-48 “billing engine..transmit...to the network manager”)

For claim 16, an initialization unit configured to initialize data volume counters (see column 12 lines 61-61 “creates service-specific counters such as either incrementing...or decrementing...”) responsive to enforcing said charging policy (see column 1 lines 61-67 “charging a premium rate” and column 11 lines 11-13 “policy engine...checks...policy table” and Figure 6 608,614, 616).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Roberts by using the features, as taught by Jogalekar in order to provide a method of a sophisticated accounting and billing method where different traffic, such as high priority traffic, is charged at a premium rate (see Jogalekar col 1).

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3. Claim 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts (US 2003/0152039) in view of Gai et al. (US 7,185,073).

For claim 3 and 13, Roberts teaches the claimed invention as described in paragraph 4.

Roberts are silent about:

As regarding claim 3, enforcing is performed upon start-up of the network element.

As regarding claim 13, Gai et al discloses said enforcing means are responsive to start-up of the network element to perform the enforcing.

Gai et al. from the same or similar field of endeavor discloses enforcing a policy the following features:

As regarding claim 3, Gai et al discloses enforcing is performed (see column 6 lines 21-26 "rules that are utilized by the intermediated devices") upon start-up (see column 6 lines 21-26 "Upon initialization") of the network element (see column 6 lines 21-26 "intermediated devices")

As regarding claim 13, Gai et al discloses said enforcing means (see column 6 lines 21-26 "rules that are utilized by the intermediated devices") are responsive to start-up (see column 6 lines 21-26 "Upon initialization") of the network element (see column 6 lines 21-26 "intermediated devices") to perform the enforcing (see column 6 lines 21-26 "rules that are utilized by the intermediated devices").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Roberts by using the features, as taught by Gai

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et al., in order to provide a system which can implement network wide management policies (like queueing strategies), without the need to manually configure each device which is time consuming and error prone (see Gai column 5 lines 35-64).

4. Claim 4 and 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts (US 2003/0152039) in view of Hundscheidt (US 7,369,541).

For claim 4 and 14, Roberts discloses all the claimed invention as described above.

Roberts is silent about:

For claim 4, the enforcing is performed upon activation of the packet data protocol context.

For claim 14, enforcing unit is further configured to be responsive to activation of the data protocol context to perform the enforcing.

Hundscheidt from the same or similar field of endeavor discloses the following features:

For claim 4, Hundscheidt discloses the enforcing is performed upon activation of the packet data protocol context (see col 11 line 15-35 "Activate PDP Context accept...starts to charge the attached mobile station").

For claim 14, Hundscheidt discloses enforcing unit is further configured to be responsive to activation of the data protocol context to perform the enforcing (see col 11 line 15-35 "Activate PDP Context accept...starts to charge the attached mobile station").

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It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Roberts by using the features, as taught by Hundscheidt, in order to provide an efficient introduction and performing of multicast in a point —to-point oriented packet-switched telecommunication network (see Hundscheidt col 5)

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts (US 2003/0152039) and Hundscheidt (US 7,369,541) as applied to claim 4 above, further in view of Schweitzer et al. (US 2002/0013849 A1).

For claim 5, Roberts discloses the packet data protocol context (see section 0004 “billing system to differentiate between different services on the same PDP context”; sections 0062-79 “PDP context”; section 0087 “context is set-up”).

Robert and Hundscheidt does not explicitly disclose the following:

As regarding claim 5, enforcing is performed dynamically during the lifetime of the data session.

Schweitzer from the same or similar field of endeavor discloses the following:

As regarding claim 5, Schweitzer discloses enforcing (see section 0035 lines 4-15 “voice over IP call...single session...checked...does not exceed..) is performed dynamically (see section 0035 lines 4-15 “...single session...checked every minute...does not exceed..) during the lifetime (see section 0033 lines 1-4 “session...definite time bound”) of the data session (see section 0035 lines 4-15 “voice over IP call...single session”).

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It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify/combine the system of Roberts and Hundscheidt by using the features, as taught by Schweitzer, in order to provide a method of limiting/allowing certain user certain amount of bandwidth, quality of service to certain users (for example depending on the account type or fees payed) (see Schweitzer sections 0043-46)

6. Claims 8-10, 15, 18- 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts (US 2003/0152039) in view of Schweitzer et al. (US 2002/0013849 A1).

For claim 9 and similarly 19, Roberts discloses creating (see section 0036 "content-based billing, content value...relevant URLs") a plurality of charging policies (see section 0012-14 "determining said rules and each packet address, a respective billing tariff and account for that packet" section 0020-21 "charging information is achieved via the analysis of packets, preferably at the GGSN" and section 0028, 0058 "charging is related to content or application, rules within the GGSN will be triggered...charging rates being applied.." and section 0062-68 "GGSN filter...and is at a MusicSite rate" and section 0095, section 0101 "GGSN matches site IP address/URL etc and places costs in the relevant traffic CDS"; section 0104), each charging policy of the charging policies (see section 0012-14 "determining said rules and each packet address, a respective billing tariff and account for that packet" section 0020-21 "charging information is achieved via

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the analysis of packets, preferably at the GGSN” and section 0028, 0058 “charging is related to content or application, rules within the GGSN will be triggered...charging rates being applied..” and section 0062-68 “GGSN filter...and is at a MusicSite rate” and section 0095, section 0101 “GGSN matches site IP address/URL etc and places costs in the relevant traffic CDS”; section 0104) comprising at least one flow parameter (see section 0036 “IP address or URL...relevant URLs”), selecting a charging policy based on offered services (see section 0036 “operator enters a deal to provide premium rate access charges”), and causing said selected charging policy to be distributed to at least one network element (see section 0036 “pre-provisioned...provisioning the relevant URLs as required into the GGSN”) to be enforced at said at least one network element (see section 0020-21 “charging information is achieved via the analysis of packets, preferably at the GGSN” and section 0028, 0058 “charging is related to content or application, rules within the GGSN will be triggered...charging rates being applied..” and section 0062-68 “GGSN filter...and is at a MusicSite rate” and section 0095, section 0101 “GGSN matches site IP address/URL etc and places costs in the relevant traffic CDS”; section 0104) for charging of data reaching said at least one network element (see section 014 “packet analyzer for determining from said rules and each packet address, a respective billing tariff” and section 0021 “analysis of packet, preferably at the GGSN” and section 0028, section 0036) during a packet data protocol context (see section 0004 “billing system to differentiate between

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different services on the same PDP context”; sections 0062-79 “PDP context”; section 0087 “context is set-up”).

For claim 10 and 20, Roberts discloses wherein said charging policy is selected (see section 0036 “operator enters a deal to provide premium rate access charges”) for a type of said network element (see section 0020-21 “charging information is achieved via the analysis of packets, preferably at the GGSN” and section 0028, 0058 “charging is related to content or application, rules within the GGSN will be triggered...charging rates being applied..” and section 0062-68 “GGSN filter...and is at a MusicSite rate” and section 0095, section 0101 “GGSN matches site IP address/URL etc and places costs in the relevant traffic CDS”; section 0104).

Robert does not explicitly disclose the following:

For claim 8 and 18, where the charging policy comprises at least one of a charging/accounting type, an accounting event trigger, a charging metrics, and a tariffing indication;

For claim 9 and similarly 19, where the charging policy comprises at least one of a charging/accounting type, an accounting event trigger, a charging metrics, and a tariffing indication; selecting a charging policy based on subscriber information.

As regarding claim 15, Schweitzer discloses said enforcing means the enforcing during the life-time of the data session.

Schweitzer from the same or similar field of endeavor discloses the following features:

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For claim 8 and 18, Schweitzer discloses where the charging policy comprises at least one of a charging metrics (see section 0043-45 lines 5-6 "policy..billed for usage" and section 0063 lines 1-5 "billing on a per session basis... IP telephony, that might be charge per minute per leg. For HTTP that might be a charge per megabyte) and a tariffing indication (see section 0043-45 lines 5-6 "policy..billed for usage" and section 0063 lines 1-5 "billing on a per session basis... IP telephony, that might be charge per minute per leg. For HTTP that might be a charge per megabyte)

For claim 9 and similarly 19, Schweitzer discloses Schweitzer discloses where the charging policy comprises at least one of a charging metrics (see section 0043-45 lines 5-6 "policy..billed for usage" and section 0063 lines 1-5 "billing on a per session basis... IP telephony, that might be charge per minute per leg. For HTTP that might be a charge per megabyte) and a tariffing indication (see section 0043-45 lines 5-6 "policy..billed for usage" and section 0063 lines 1-5 "billing on a per session basis... IP telephony, that might be charge per minute per leg. For HTTP that might be a charge per megabyte) ,;selecting a charging policy based on subscriber information (see section 0035 lines 10-15 "prepaid calling" and section 0043 lines 5-6 "policy might control how users..are billed for usage", section 0045 "policy...user and group based restriction and evaluations").

As regarding claim 15, Schweitzer discloses said enforcing means (see section 0102 "hardware...combination of hardware and software")are dynamically

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performing (see section 0035 lines 4-15 "...single session...checked every minute...does not exceed..) the enforcing (see section 0035 lines 4-15 "voice over IP call...single session...checked...does not exceed..) during the life-time (see section 0033 lines 1-4 "session..definite time bound") of the data session (see section 0035 lines 4-15 "voice over IP call...single session").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify/combine the system of Roberts by using the features, as taught by Schweitzer, in order to provide a method of limiting/allowing certain user certain amount of bandwidth, quality of service to certain users (for example depending on the account type or fees payed) (see Schweitzer sections 0043-46)

7. Claim 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts (US 2003/0152039) in view of Chaskar (US 2002/0122432)

For claim 7 and 17, Roberts discloses all the claimed invention as described above.

For claim 7 and 17, Roberts further discloses wherein said data flows are Internet Protocol (IP) based packet data flows (see section 0012 "packet address" section 0021 "based on the destination of the service as described by the URL or IP address and port number of the server"; section 0036 "IP address or URL"; sections 0062-79 "URL"; section 0101),

Roberts does not explicitly disclose the following:

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For claim 7 and similarly 17, said flow parameters comprise at least one of an IP header field, a transport header field, and an application level information.

Chaskar from the same or similar field of endeavor discloses the following features:

For claim 7 and similarly 17, Chaskar discloses said flow parameters comprise at least one of an IP header field, a transport header field, (see section 0019 “fields..packet header such as source/destination IP addresses, TCP/UDP port address...” and section 0025)

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Roberts by using the features, as taught by Chaskar, in order to provide a technique that supports various QoS classes across the GPRS core network in a scalable and efficient way (see Chaskar sections 0004-10).

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KENAN CEHIC whose telephone number is (571)270-3120. The examiner can normally be reached on Monday through Friday 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KWANG BIN YAO can be reached on (571) 272-3182. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kenan Cehic/

Examiner, Art Unit 2416

/KWANG B. YAO/

Supervisory Patent Examiner, Art Unit 2473